

ABSTRACT OF THE DISCLOSURE

A method for cleaning a stationary gas turbine unit during operation, wherein the unit comprises a turbine, a compressor driven by the turbine, the compressor having an inlet, an air inlet duct arranged upstream of the air inlet of the compressor, the inlet duct having a part of the duct adjoining the inlet of the compressor and having decreasing cross section in the flow direction in order to give the air flow a final velocity at the inlet to the compressor. A spray of cleaning fluid is introduced in the inlet duct. The cleaning fluid is forced through a spray nozzle with a pressure drop exceeding 120 bar to form a spray the drops of which have a mean size that is less than 150 μm . The spray is directed substantially parallel to and in the same direction as the direction of the air flow. The spray is introduced at a position in the duct section where the air velocity is at least 40 per cent of the final velocity at the compressor inlet, so that the drops of the liquid spray are caused to acquire a slip ratio of at least 0.8 at the compressor inlet.